



Djavad Mowafaghian
CENTRE FOR BRAIN HEALTH

STRATEGIC
PLAN

2020-2025



DEWANEY FOUNDATION
CENTER FOR SENIOR HEALTH

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EXECUTIVE SUMMARY

Director Lynn Raymond and Associate Director Shernaz Bamji led the initiative to develop the Djavad Mowafaghian Centre for Brain Health's first strategic plan, which will guide the Centre's actions and activities over the next five years and beyond.

The plan focuses on four strategic pillars —*Research, Training, Local and Global Engagement, and People and Places*—with specific actions outlined in order to achieve success in each pillar. All of these align closely with the strategic priorities of the UBC Faculty of Medicine and fit into the Centre's larger vision of achieving *global excellence in the advancement of brain health across the lifespan*.

With an emphasis on creativity and innovation, the Centre aims to expand its cross-disciplinary research to enable high impact, translational findings to improve the health and wellbeing of patients. Through research, education and community outreach programs, the Centre will foster collaborative and reciprocal partnerships both locally and abroad.



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Pictured (L-R): Director Lynn Raymond and Associate Director Shernaz Bamji

This plan will serve as a solid foundation to guide the Centre’s decision-making process over the next several years while also enabling the flexibility to pivot towards exciting new opportunities as they arise.

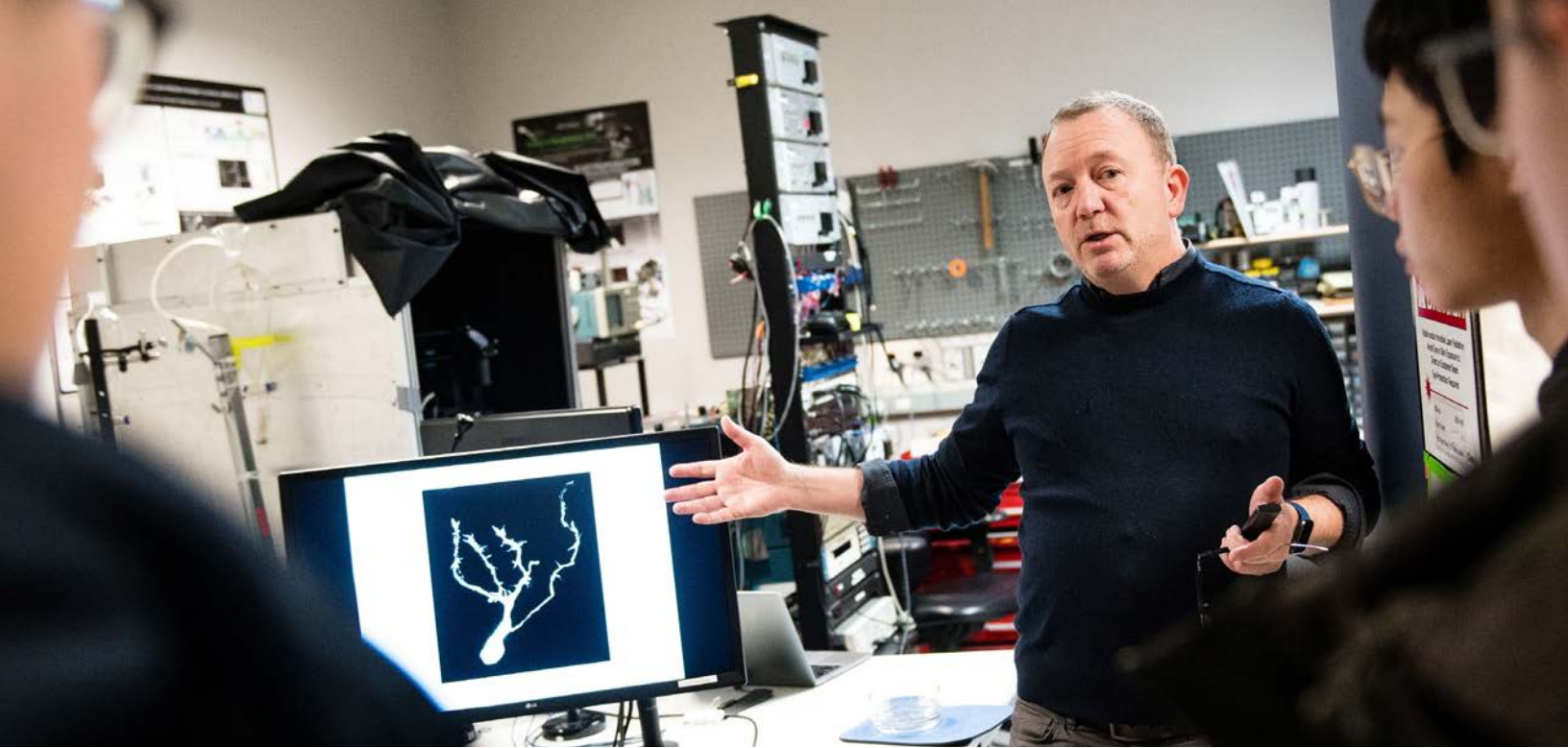
Many of the objectives outlined in this strategy are underway, including funding to support innovative research and the creation of four Working Groups—Neuroinformatics, Community Building, Translational Research, and Education— which will drive new initiatives and support existing programs such as the BC Brain Wellness Program, the Dynamic Brain Circuits Cluster and other brain health related programs.

The development of this strategic plan marks a milestone in the Centre’s history, and it will be implemented in partnership with the exemplary members (spanning from clinicians to foundational scientists), staff and trainees who make up this neuroscience community. Building upon the unique strengths of the Djavad Mowafaghian Centre for Brain Health community, the resulting plan encompasses the wide breadth of neuroscience work and impressive legacy that the Centre has already established over the past seven years since its founding.

ABOUT THE DJAVAD MOWAFAGHIAN CENTRE FOR BRAIN HEALTH

The Djavad Mowafaghian Centre for Brain Health builds on the University of British Columbia's (UBC) impressive legacy of brain research and brings together experts in the fields of neuroscience, neurology, psychiatry, and rehabilitation science in a hub for training, research, and clinical care. The Centre is comprised of a community of more than 100 investigators with multidisciplinary expertise who span many different faculties, departments, and locations, both across UBC and at other academic institutions. Headquartered in a state-of-the-art facility located on UBC's Point Grey campus, the Centre bridges basic science and clinical care, and provides opportunities for education, collaboration, and interaction with patients from across BC. The Centre represents a partnership between Vancouver Coastal Health and the Faculty of Medicine at UBC and was made possible with a generous donation from the Djavad Mowafaghian Foundation along with contributions from other philanthropists and leaders, as well as those of the federal and provincial governments.





THE STRATEGIC PLANNING PROCESS

The process for developing this strategic plan started in March 2020, shortly after new leadership was implemented at the Centre. The first step involved a survey which was sent out to members of the community to gain a better understanding of each person's area of expertise as well as their interests. The Directors met virtually with researchers in small groups during which each person was able to provide input on priorities and goals for both their personal research and the Centre. Later, a virtual faculty retreat served as a forum for discussing strategic priorities and receiving input from the wider community. UBC's Strategic Decision and Support Office was then consulted to develop a strong and thorough strategic framework. In December, a draft of the plan was presented to the Centre's executive committee who provided feedback and suggestions. After the plan was revised, it was presented to the Centre's members, staff, trainees, and other important stakeholders in a town hall meeting, as well as in the form of a survey, to gather feedback and ensure everyone in the community had an opportunity to be involved in the process. Feedback was reviewed and incorporated as appropriate.



VISION:

Global excellence in the advancement of brain health across the lifespan.



MISSION:

The Djavad Mowafaghian Centre for Brain Health is committed to investing in its researchers and trainees to promote brain health through innovative research, education and patient care in British Columbia and across Canada.

VALUES

In support of the Djavad Mowafaghian Centre for Brain Health's vision and mission, the following six core values will guide all of the Centre's activities, interactions and decisions to ensure its success.

Excellence:

The Centre values high quality, impactful research from our members and a strong education environment for our trainees. We will pursue innovative ways to push the bar higher through supportive programs and partnerships for our members with the ultimate goal of advancing brain health across the lifespan.

Collaboration:

This value is at the heart of what it means to work and learn at the Centre. We are unique in the sense that our community is comprised of both foundational and clinical research teams, which continue to result in productive partnerships. Externally, we are committed to working with community partners as well as other research institutions on a local, national and international scale.

Innovation:

The Centre puts strong emphasis on innovation, creativity and resourcefulness in research and education to push the boundaries of discovery and translational research.





Transparency and Accountability:

At the Centre, we recognize that our research is made possible through public funds and generous support from donors. As such, we are committed to openness and transparency, and we take our responsibility and accountability to the community seriously. We are also committed to being transparent with members with respect to our decision-making process as it relates to research programs.

Equity, Diversity and Inclusion:

One of the Centre's top priorities is to promote a respectful environment built around inclusivity and equity, ensuring that every person is heard, valued and accepted.

Integrity:

The Centre's faculty, staff and trainees are devoted to upholding the highest standards of ethical conduct when it comes to conducting research and patient care. We are fully committed to representing UBC in a respectful and honourable way and returning value to the community's generous contributions.

RESEARCH PRIORITIES



Organization of our faculty is underway to create five Integrated Research Programs: Brain Development and Neurodevelopmental Disorders, Mental Health and Addictions, Brain Injury and Repair, Sensory/Motor Systems and Movement Disorders, and Learning/Memory and Dementias (see Figure 1).

These Programs cut across foundational/clinical disciplines and encompass the strengths of our researchers. The organization into programs will facilitate new cross-disciplinary and foundational-clinical collaborations, foster ideas for team and infrastructure funding proposals, and enhance ability to attract donors that more broadly support the Centre's research community.

Through the strategic planning process, we have identified three research priorities that will build on our current strengths while advancing the Centre into new and exciting disciplines that are at the forefront of brain health and wellness.

1. Neuroimmunology is a new and emerging field at the intersection of the brain and the immune system. Recent advances have shown that the cross-talk between the immune and nervous systems can significantly impact brain development, the risk of mental illness, recovery after brain injury, as well as brain wellness in the aging population. As such, this burgeoning discipline intersects with many of the strengths of the Centre and will allow for fruitful collaborations and new opportunities to drive innovative research.

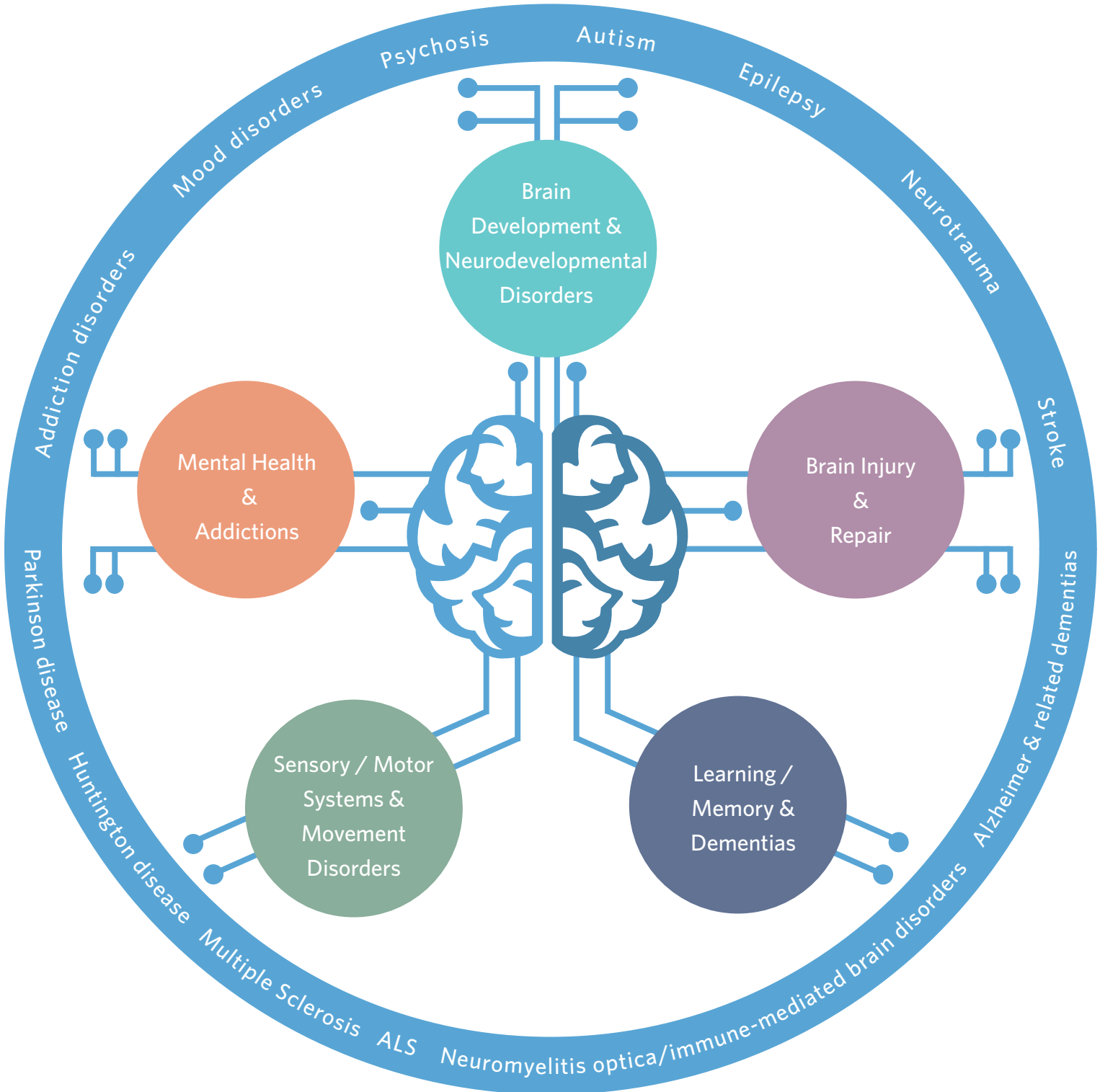
2. Neuroinformatics involves the development and application of computational and statistical methods, databases and models for the study of the nervous system. With new and exciting technological advances, we are now poised to gather vast amounts of information about the brain to further interrogate its complexities. To do this, we need to support our researchers in storing, sharing, and analyzing data, as well as supporting new research programs in this fascinating field.

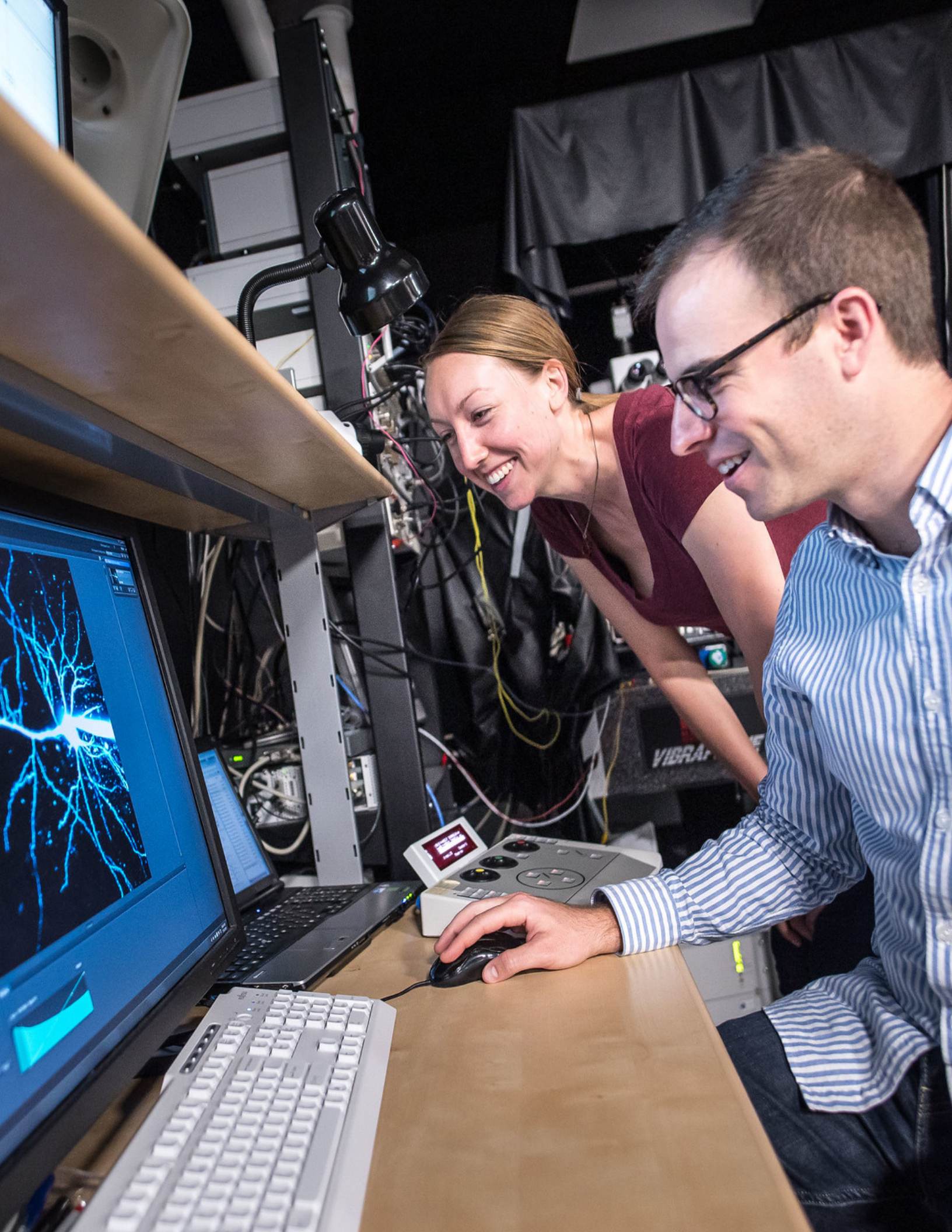
3. Neurogenomics is a field dedicated to studying the ways in which an organism's genome influences the development and function of its nervous system. Gene variants and alterations in gene expression are key contributors in many neurodevelopmental, psychiatric and neurodegenerative disorders, making this an area of research in which the Centre plans to strengthen and bolster its capacity.



Figure 1. Integrated research programs and clinical disciplines

Brain Health Across the Lifespan





RESEARCH

We are a global leader in brain research and innovation. Through the attraction and retention of top research talent, we expand our cross-disciplinary research to enable high impact, translational findings to improve the health and wellbeing of patients.



GOAL:

Promote excellence in research and innovation to advance global knowledge and understanding of brain health

In support of this strategic pillar, the following three objectives have been established:

1. Promote innovative research that expands our understanding of brain development, function, health and wellness

ACTIVITIES

- 1.1** Enhance research excellence and innovation with high-quality infrastructure, resources and support for core facilities.
- 1.2** Develop infrastructure and initiatives to promote open science and data sharing.
- 1.3** Improve practices, training and support for data management, data science and informatics.
- 1.4** Hire a Grants Development Officer to support research activities.
- 1.5** Establish internal review process for grants.
- 1.6** Partner with UBC Development office to identify and seek out revenue streams from all available sources, including private donors, to support cross-disciplinary Integrated Research Programs. Emphasis will be placed on our research priority areas, i.e., Neuroimmunology, Neuroinformatics and Neurogenomics.



RESEARCH



2. Attract and retain top research talent in key areas of brain health research

ACTIVITIES

- 2.1** Develop targeted recruitment strategies to attract top researchers with outstanding track records in foundational and translational research in priority areas, including neuroimmunology, neuroinformatics and neurogenomics.
- 2.2** Establish a mentoring program to advance the careers of researchers at all levels in close collaboration with departments and faculties.

3. Facilitate cross-disciplinary collaboration including foundational and clinical teams as well as catalyze new clinical trials

ACTIVITIES

- 3.1** Develop Integrated Research Programs that include foundational and clinical researchers.
- 3.2** Engage foundational and clinical faculty to elevate the reach and scope of the research conducted at the Centre through Working Group activities (e.g., annual faculty planning and research retreats to enhance collaboration)
- 3.3** Provide research infrastructure, including seed funding for innovative and collaborative research, as well as grant writing support to advance translational research projects from cross-disciplinary teams.
- 3.4** Partner with the Faculty of Medicine's Academy of Translational Medicine to enhance clinical trial infrastructure and support translational innovation



TRAINING

We provide the highest standard of neuroscience training and mentorship for students and postdoctoral fellows to foster the development of the next generation of talented researchers.



GOAL:

Inspire and enable trainee success through the highest standard of neuroscience training in an equitable, diverse and inclusive way

In support of this strategic pillar, the following two objectives have been established:

1. Create a rich environment to provide high-quality research training for the next generation of talented researchers, including undergraduate and graduate students, and postdoctoral fellows

ACTIVITIES

- 1.1** Support both the Undergraduate and Graduate Neuroscience Programs by providing space for program leadership as well as administrative support for trainee-led activities including communication, science education, community outreach and social activities that promote interaction and wellbeing
- 1.2** Provide partial support for trainee workshops and courses. (e.g., in data science, artificial intelligence, state-of-the-art tools in brain imaging, 'omics)
- 1.3** Partner with Graduate Program in Neuroscience to organize more workshops and training opportunities that focus on developing career skills, especially in science communication and education
- 1.4** Provide opportunities for trainees to present their research to the community (e.g., practice job talks for PDFs, seminars by graduate students following comprehensive exam and/or in association with PhD thesis defence)



TRAINING



2. Attract top quality trainees, with a focus on equity, diversity and inclusion, into the Centre's research labs

ACTIVITIES

- 2.1** Identify and seek out new funding and revenue streams from all available sources, including private donors, to support research training. This will be implemented as competitive training stipend awards.
- 2.2** Invite international students and fellows to train with our members and within our facilities, and in turn, facilitate learning abroad for our members.
- 2.3** Foster an open and inclusive environment by continuing to support existing initiatives and establishing new ones that attract trainees of all genders and ethnic backgrounds, such as the undergraduate internships for Indigenous students in UBC neuroscience labs



LOCAL AND GLOBAL ENGAGEMENT

We create strong strategic partnerships to enhance our impact in brain health both locally and abroad. Through education, research and community outreach programs, the Centre fosters collaborative and reciprocal relationships.



GOAL:

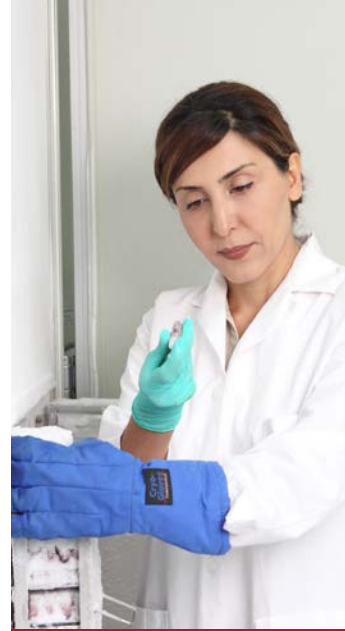
Increase and strengthen strategic relationships to enhance our impact

In support of this strategic pillar, the following three objectives have been established:

1. Promote collaborations and partnerships across UBC and globally

ACTIVITIES

- 1.1** Continue to partner with UBC schools and departments to hire new faculty, access trainees and trainee awards, and share complementary expertise (e.g., increase engagement and collaborations with UBC computer science and engineering).
- 1.2** Engage with our established partners across Canada (e.g., the Canadian Neurophotonics Platform and Canadian Open Neuroscience) and internationally (e.g., Neurofutures Organizing Committee and Allen Institute for Brain Science), to obtain research funding and secure training, with an emphasis on key research areas such as Neuroimmunology, Neuroinformatics and Neurogenomics.
- 1.3** Establish global partnerships for learner exchange programs in Asia-Pacific, North and South America, Africa and Europe.
- 1.4** Maximize our impact through membership representation at board level both nationally and internationally (e.g., International Brain Initiative, Canadian Brain Research Strategy, Canadian Association for Neuroscience and Brain Canada).



LOCAL AND GLOBAL
ENGAGEMENT

2. Attract wider attention to the Centre's research programs and their impact across UBC and globally

ACTIVITIES

- 2.1** Revitalize the Centre's website to effectively highlight our researchers' profiles and their studies.
- 2.2** Create and implement a social media strategy to highlight the latest news and updates at the Centre.
- 2.3** Engage with the public and other stakeholders to educate and receive input on research priorities through public town hall meetings and a dedicated public outreach section on the Centre's website.
- 2.4** Share strategic plan and membership successes at UBC executive level (Deans, VP Research & Innovation Office, Provost Office) to expand recognition and enhance championship opportunities.





3. Integrate the Centre into the community through education, programs and meaningful engagement

ACTIVITIES

- 3.1** Increase our profile in the community by promoting and expanding activities and programs such as the Brain Wellness Program.
- 3.2** Recruit members of the public to engage in novel cohort-based brain research studies leveraged from the Centre's Brain Wellness Program.
- 3.3** Recruit representation from the public to an Advisory Board on matters of public interest and priorities to inform research.
- 3.4** Develop public education platforms (both online and in-person lecture series) to inform the general public on brain health issues.

PEOPLE AND PLACES

We create a supportive, inclusive working environment that supports the Centre's members in reaching their highest potential. We facilitate cross-campus communication, collaboration and sharing of resources to ensure faculty and staff success.



GOAL:

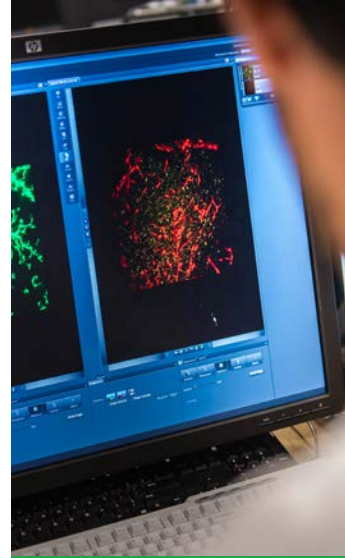
Enhance orchestration of efforts and support for the Centre's members to reach their highest potential

In support of this strategic pillar, the following three objectives have been established:

1. Establish clear communication to promote cohesiveness among members

ACTIVITIES

- 1.1** Build into our neuroscience colloquia series regular multiple-member presentations that highlight complementary research activities from foundational to clinical and translational.
- 1.2** Develop and implement a comprehensive communication strategy to connect members across campus including a new website, the use of collaboration tools (such as Slack and MS Teams), enhanced use of social media and other communication platforms to promote accomplishments.
- 1.3** Adapt and promote use of virtual platforms as well as organize in-person events to encourage team-building, collaboration and connectedness, through annual faculty and research retreats and town halls.
- 1.4** Develop and promote a database of the Centre's research resources, including shared tools and biospecimens, through members-only website.

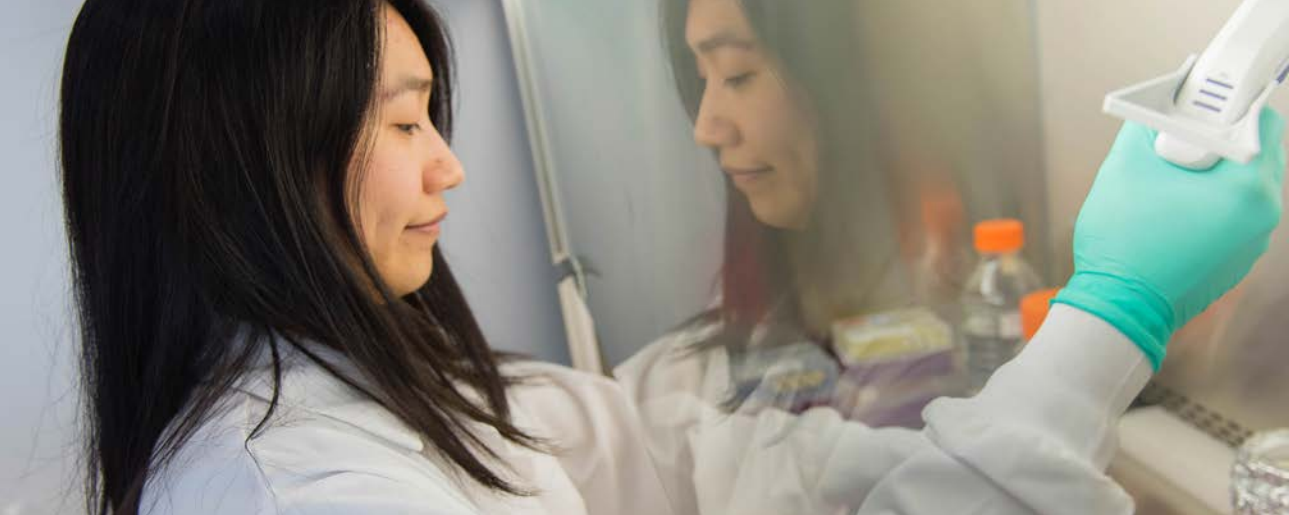




2. Promote a culture of equity, diversity, anti-racism and inclusion, and respectful environments

ACTIVITIES

- 2.1** Continue to be an ally and discover more ways of working with UBC EDI groups to raise awareness and promote EDI activities, events and resources. This includes the UBC Equity & Inclusion Office, the Faculty of Medicine's Office of Respectful Environments, Equity, Diversity & Inclusion (REDI) and representation on Medicine's EDI Community of Practice.
- 2.2** Form an EDI committee, as part of the Building Community Working Group, to promote diversity in recruitment and recognition at faculty and student levels and ensure an inclusive environment for all.



3. Strengthen support for the Centre's staff and faculty with respect to core infrastructure and awards

ACTIVITIES

- 3.1** Enhance support for our core facilities including the NINC (Neuroimaging and Neurocomputational Centre) and the Biobank to accelerate state-of-the-art research productivity and foster clinical-foundational collaborations.
- 3.2** Provide seed funding to hire tech experts in imaging.
- 3.3** Leverage UBC shared resources and expertise to promote efficiencies and cross-campus collaborations.
- 3.4** Develop our own database of awards and establish a committee to nominate members for notable awards within the Faculty of Medicine and UBC and other significant external awards.
- 3.5** Nominate staff for awards and support their engagement in ongoing professional development.

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